

Quarterly
Surveillance Report



April-June
2008

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and 11.1% of high school
youth report that they
currently have asthma.*

Asthma Control Program
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The Burden of Asthma In Montana

Background

Asthma is a chronic inflammatory disease of the airways characterized by episodic symptoms of wheezing, shortness of breath, coughing and chest tightness. The prevalence of asthma in the US has more than doubled over the past three decades from an estimated 3.1% in 1980 to 7.1% in 2004.¹ Approximately 22 million people in the US currently have asthma. In 2004, asthma was responsible for nearly 500,000 hospitalizations, 2 million emergency department (ED) visits and 5,000 deaths nationwide. The economic burden of the disease totaled more than \$16 billion.²

In 2007, the Montana state legislature provided funding for asthma control, allowing the Department of Public Health and Human Services to create the Asthma Control Program. This program is responsible for developing an asthma surveillance system for the state and for coordinating a statewide asthma control effort. In February 2008, the Montana Asthma Control Program published a report entitled, *The Burden of Asthma In Montana: Challenges and opportunities related to asthma management and control in the Big Sky state*. The report contains analysis of the population level data related to asthma currently available in Montana including the:

- Behavioral Risk Factor Surveillance System (BRFSS)
- Youth Risk Behavior Survey (YRBS)
- Hospital discharge data
- Mortality data
- Pediatric Medicaid data

A full copy of the report is available at the Asthma Control Program website: <http://dphhs.mt.gov/asthma>

This document highlights key findings from the asthma burden report including the high asthma related disease burden in the state, populations at risk for asthma and asthma related deaths.

Key finding #1: Asthma exacts a significant disease burden in Montana.

12.4% of Montana adults aged 18 and over and 20.9% of Montana high school students report being diagnosed with asthma at some point in their lifetime. 8.3% of Montana adults and 11.1% of Montana high school students

report currently having asthma.^{3,4} In all, over 75,000 individuals in Montana currently have the disease. The self-reported asthma prevalence in Montana is statistically similar to national estimates.

Figure 1: Self-reported lifetime and current asthma prevalence for adults in the US and Montana, 2006

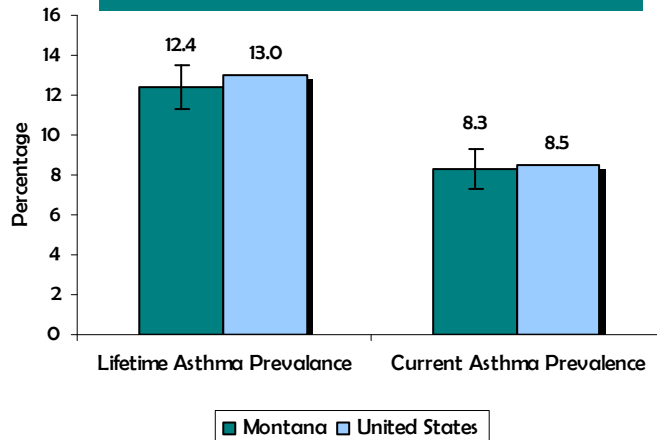
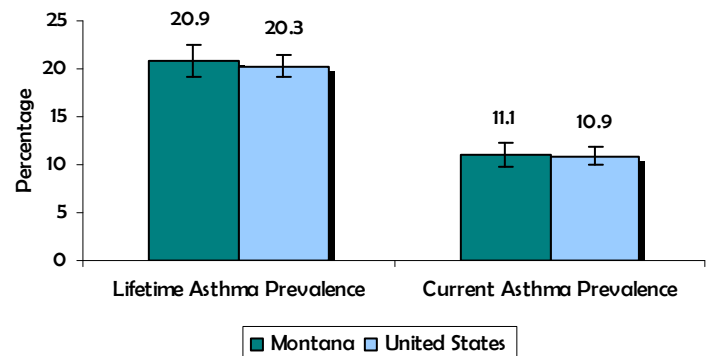


Figure 2: Self-reported lifetime and current asthma prevalence among high school youth in Montana and the United States, 2007



Key finding #2: Asthma disparities exist, with some groups shouldering a higher disease burden than others.

Female adults have significantly higher prevalence of asthma than males (9.7% vs. 6.8% in 2006). Obese adults also have a higher prevalence of asthma than adults who are not obese (11.5% vs. 7.3% in 2006). Other factors independently associated with higher asthma prevalence in Montana adults include lower annual household income and educational attainment.

Figure 3: Self-reported asthma prevalence in Montana adults by gender, BMI and annual income, 2006

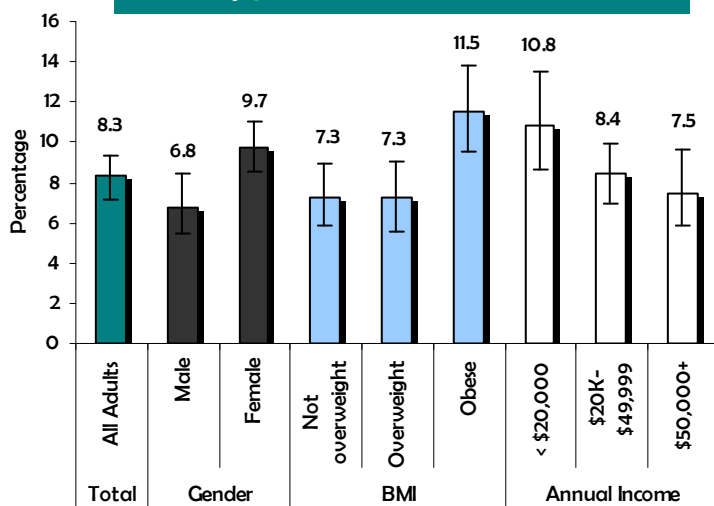
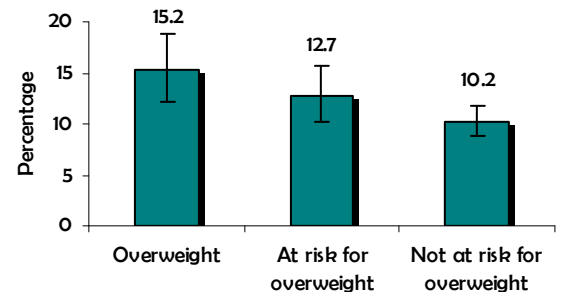


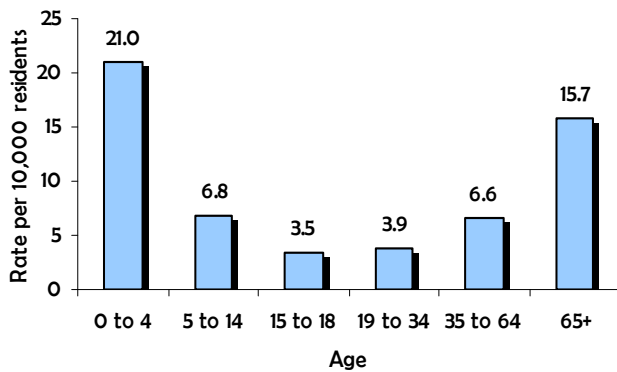
Figure 4: Self reported current asthma among high school youth in Montana according to Body Mass Index, 2007



High school youth who are overweight have significantly higher prevalence of asthma than their counterparts who are not at risk for overweight (15.2% vs. 10.2% in 2007).

Key finding #3: Asthma is a serious health condition, leading to hospitalization and sometimes death.

Figure 5. Hospitalization rate for asthma (primary diagnosis) per 10,000 Montana residents by age, 2000-2005

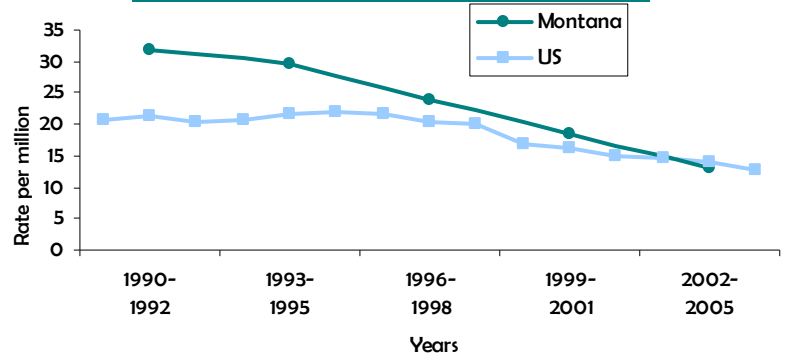


In 2005, over 700 hospitalizations with a primary diagnosis of asthma and 4,200 hospitalizations with a secondary diagnosis of asthma occurred in Montana. Hospitalization rates are highest for children aged 0-4 and adults aged 65 and over and have increased 32% and 46% in these groups respectively from 2000 to 2005.

Since 1990, an average of 20 deaths due to asthma have occurred annually in Montana. Death rates due to asthma are declining, dropping 60% overall from 1990 to 2005.

Patients with a primary or secondary diagnosis of asthma spent over 19,000 days in Montana hospitals in 2005.

Figure 6: Age adjusted asthma mortality rates for Montana and the US, 1990-2005



Discussion: More can be done to monitor asthma and intervene to promote asthma control.

In Montana, population level data does not currently exist for several important asthma related outcomes including asthma related ED visits, adherence to clinical guidelines, disease management and control, and the effect that asthma has on the daily lives of those with the disease. The Asthma Control Program is pursuing opportunities to develop surveillance for these important indicators.

Working in conjunction with key stakeholders, the Asthma Control Program will use surveillance data to inform the development of a comprehensive asthma control plan for the state. The plan will support evidence based clinical and public health interventions related to asthma in multiple settings across the state.



For more information on the Asthma Control Program contact Katie Loveland, Program Manager
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The Montana Asthma Control Program is funded through the Montana State Legislature. The goal of the program is to improve the quality of life for all Montanans with asthma. Program staff include:

- Adult asthma prevalence
- Youth asthma prevalence
- Asthma disparities
- Asthma related hospitalizations
- Asthma related deaths
- Populations at risk
- The new Asthma Control Program at DPHHS

Look inside for Montana-specific information on:



Key findings from the first report on the burden of asthma in Montana

Asthma in Montana

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